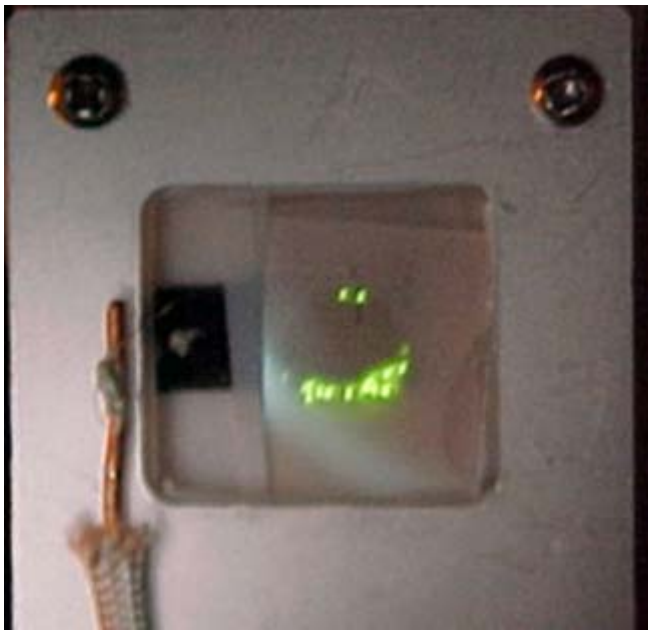
LSU CAMD REU Students, Summer 2003

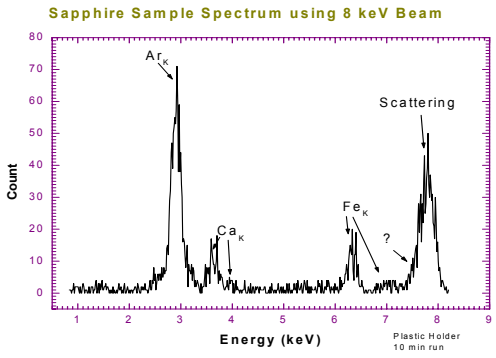
Left to right; Ben Steuben (Nicholls State Univ., Chem.), Austin Speier (Harvard, Phys.), Joseph Herzog (LSU, Comp. Eng.), Tiffany Veillon (Grad. 2003 Louisiana School for Arts, Math and Sci.), Michael Johnson (Southern Univ., ME), Evan Anzalone (LSU, Comp. Eng.), Anthony Jones (UALR, ME), Zachary Byerly (U. Texas, Phys.), Edward Hinson (Middlebury Coll., Phys./Math), Rochelle Seals (Southern Univ., Chem.), Victor Lian (Supported by CAMD, student at Baton Rouge Magnet H.S.), Lawrence Mosley (Southern Univ., EE), Lee Ann Broussard and John Scott

Sample Projects



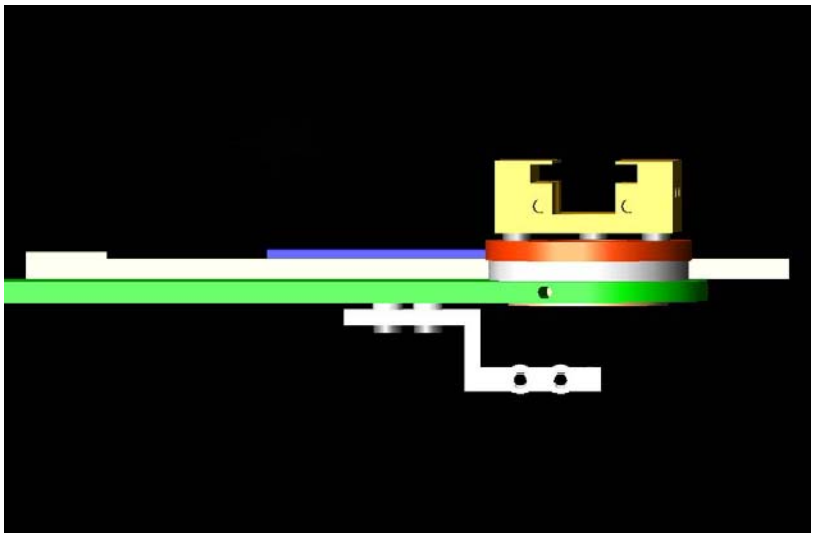
Field-emission display of semiconductors based on carbon nanotubes. Brian Usner, Tulane Univ., Physics

Sapphire XMP readings

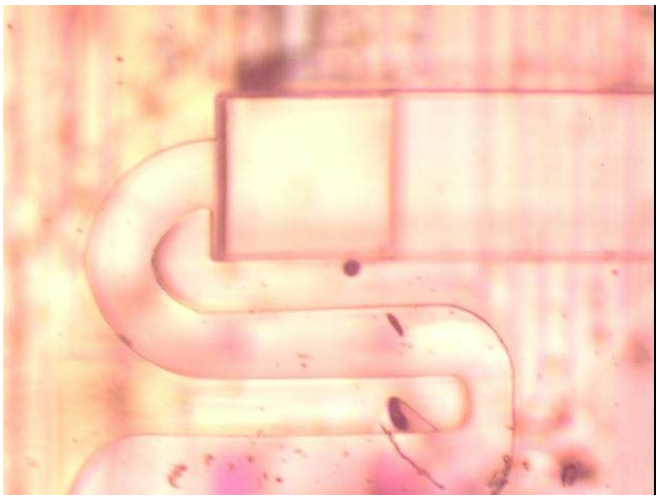


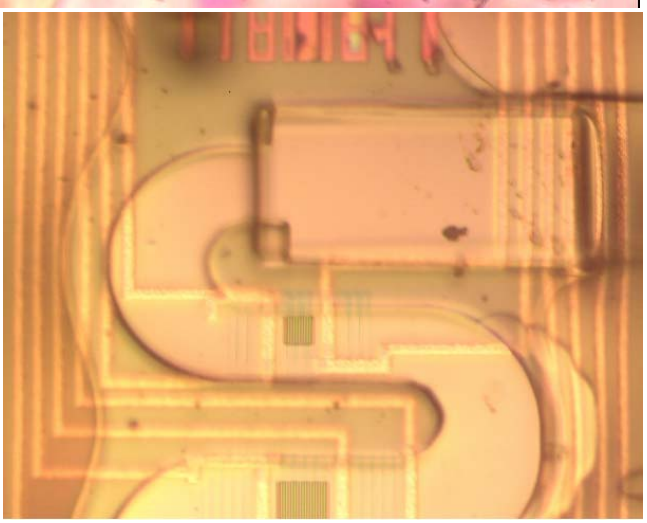
One of many X-ray fluorescence spectra, produced at the CAMD microprobe beamline, in a study of the purity of synthetic sapphires. This spectrum shows presence of trace amounts of Fe in small crystal. Alex Harvey, Southern University, Physics.

Sample Projects



Side view of ultra-high-vacuum goniometer for high-resolution electron spectroscopy, Jason Dees. Louisiana Tech University, Mechanical Engineering.





Micro-fluidic channels produced in SU8 resist polymer in the CAMD lithography laboratory. These channels were used to measure the flow of magnetic nanoparticles (suspended in water) using commercially giant magnetic resistance sensors. Top micrograph is channel in SU8 and bottom is channel overlayed with second structure containing sensor. Anthony Jones, Univ. of Arkansas at Little Rock, Mech. Eng.

Some Facts

- During the summers 2001-2003, the CAMD REU Program has worked with 27 undergraduate students supported by NSF REU funding (2 students have returned for a second summer). Two high-school science teachers and 1 high-school student (just graduated) have been supported by NSF. In addition, CAMD has supported 1 student from Ghana, 2 junior-level high-school students and 1 high-school science teacher.
- Students have represented eight Louisiana universities and 4 out-of-state universities.
- Projects, directed by faculty and staff at CAMD, cover the areas of
  - LiGA microfabrication,
  - electronic nanodevice fabrication and implementation,
  - materials research in the X-ray spectroscopy of environmentally significant samples, nanoscale materials and special synthetic materials,
  - X-ray microtomography
  - VUV and IR spectroscopic equipment development